

# ECONOMICS OF TODAY'S SWINE INDUSTRY

A perspective for Veterinary Students

Changing Consumption  
Changing Structure  
Changing Production  
Changing Economics

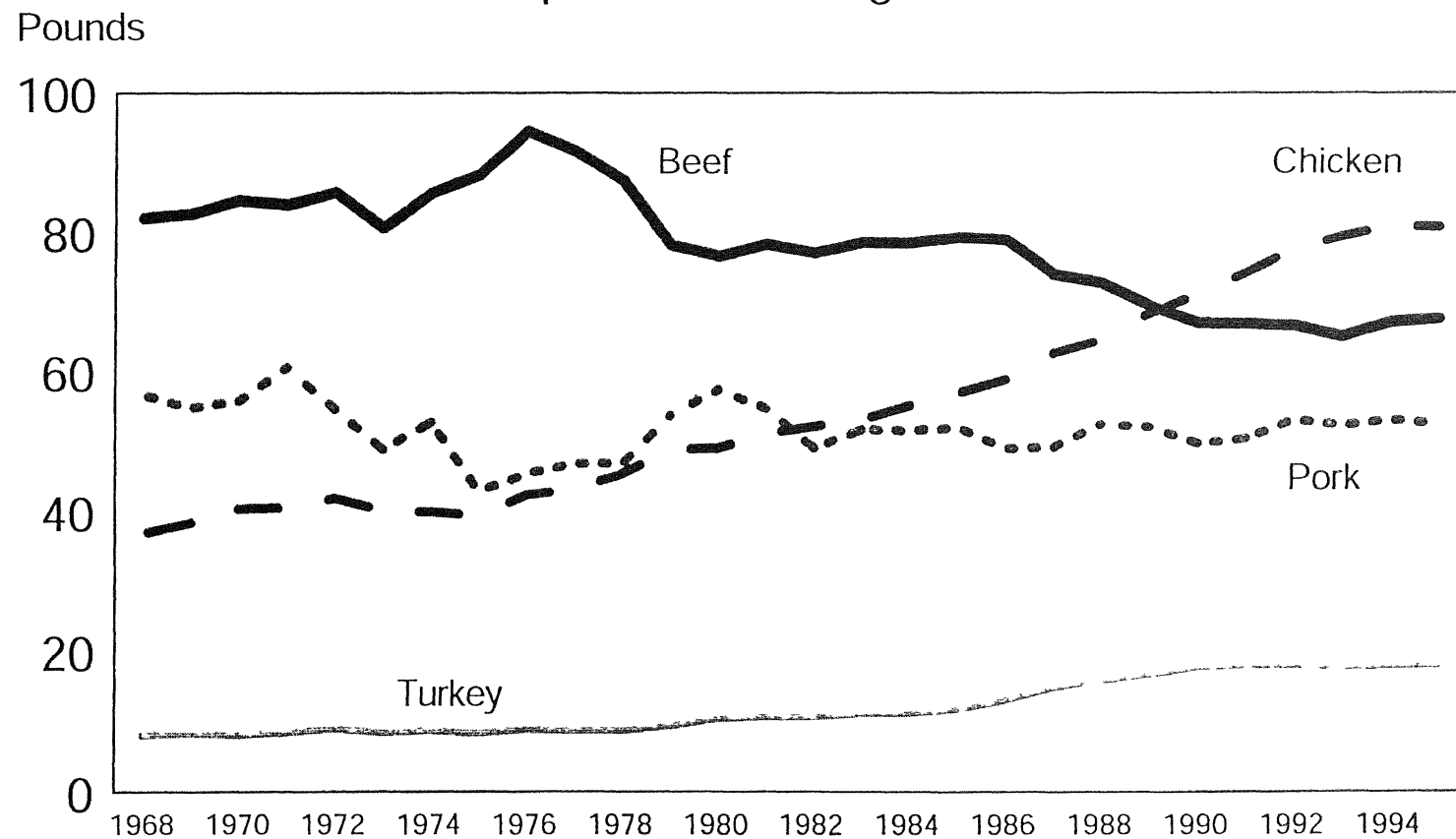
by

Allan E. Lines  
David Meeker

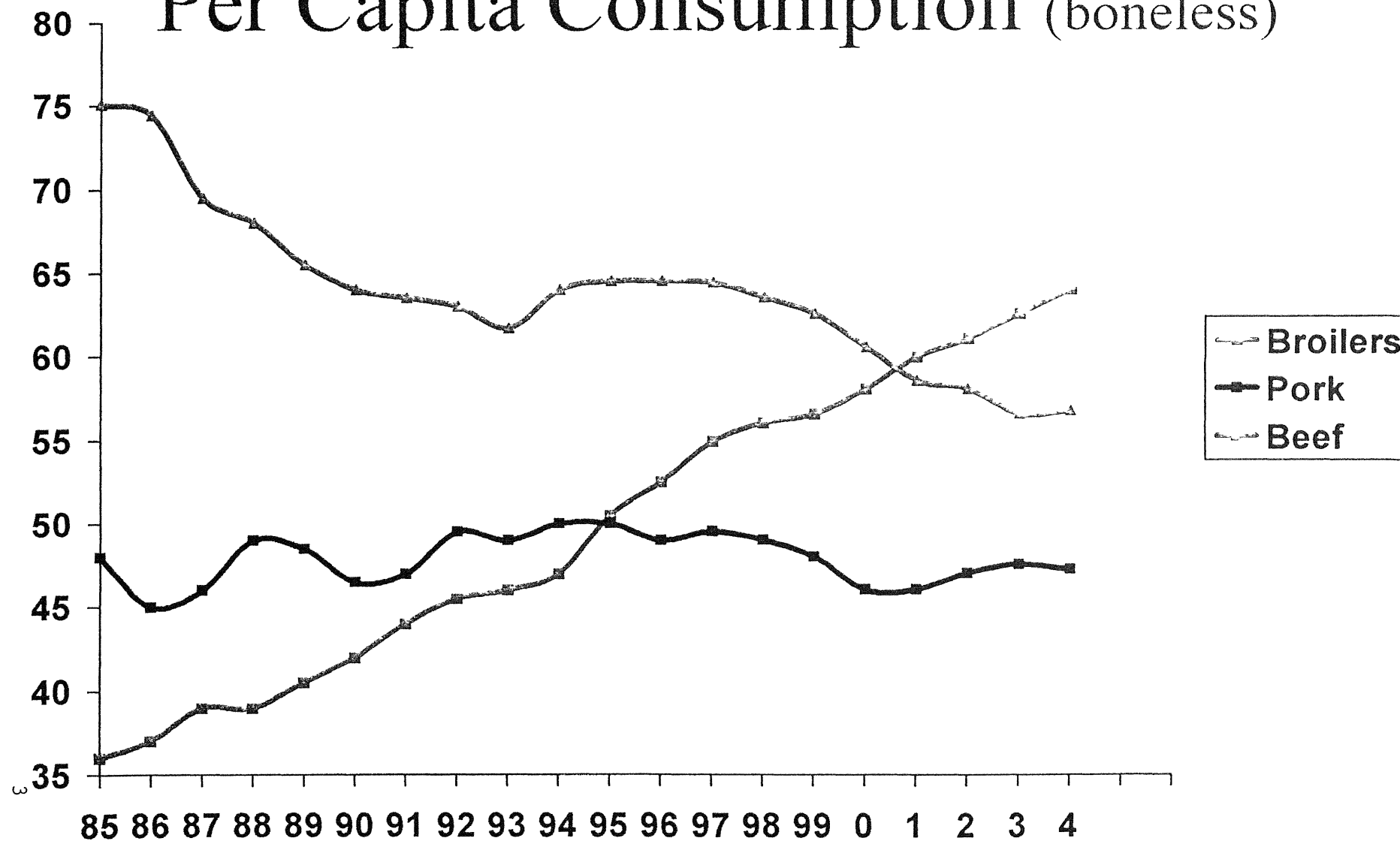
The Ohio State University  
Columbus, Ohio

# BEEF, PORK, AND POULTRY CONSUMPTION

## Per Capita, Retail Weight, Annual

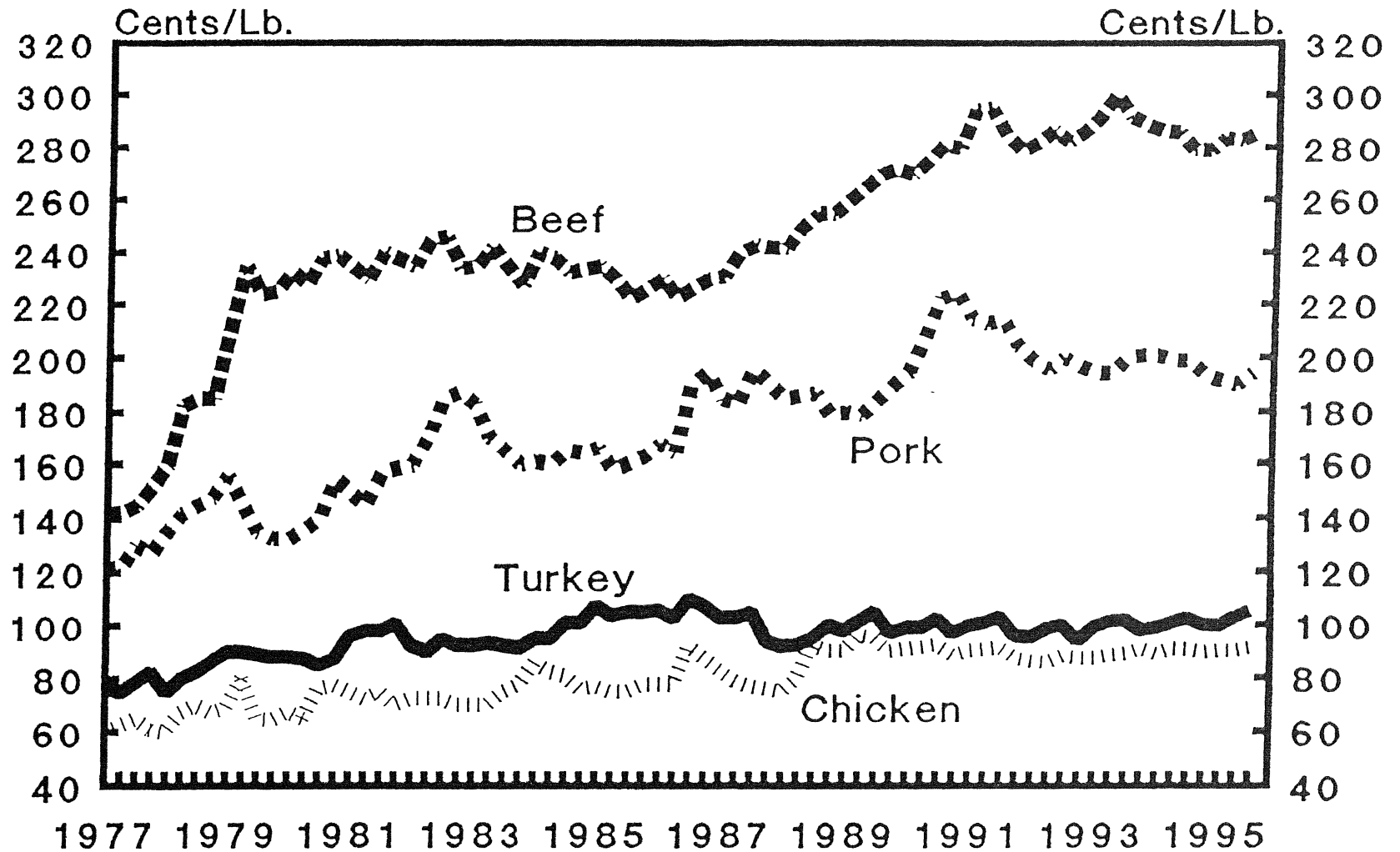


# Per Capita Consumption (boneless)



# RETAIL MEAT PRICES

## QUARTERLY AVERAGE



# Number of Operations by Size

Number Sold/Yr	1991	1994	% change
1,000-1,999	16,647	15,188	-9%
2,000-2,999	6,435	6,191	-4%
3,000-4,999	3,621	3,806	+5%
5,000-9,999	1,861	2,209	+19%
10,000-49,000	1,045	1,062	+2%
> 50,000	41	66	+61%
Total	29,650	28,523	-4%

# U.S. Hog Marketing by Producer Size

Number Sold/Yr.	1988	1991	1994
< 1,000	32%	23%	18%
1,000-1,999	19%	20%	17%
2,000-2,999	11%	13%	12%
3,000-4,999	10%	12%	12%
5,000-9,999	9%	10%	12%
10,000-49,000	12%	13%	13%
> 50,000	7%	9%	17%

# % Farms with less than 1,000 Head

Ohio	71%
Wisconsin	68%
South Dakota	66%
Nebraska	55%
Iowa	53%
Minnesota	51%
USA	45%

# HOG FARM PERFORMANCE

## STRUCTURAL CHANGE: GREATEST VS. OTHER

### 1992 ERS STUDY

	Greatest Change	Other
<u>Performance</u>		
Pigs/Litter	8.8	7.6
Weaning Mortality (%)	10	13
Feed/cwt (lbs)	380	422
Labor/cwt (hrs)	0.87	1.24
Bldg. Use (% capacity)	80	49
Bldg. Age (yrs)	8	20
Economic Advantage/cwt gain		
Existing Bldg.	\$3.90	
All New Bldg.*	\$13.30	

∞

\* Estimated

Revised 10/95



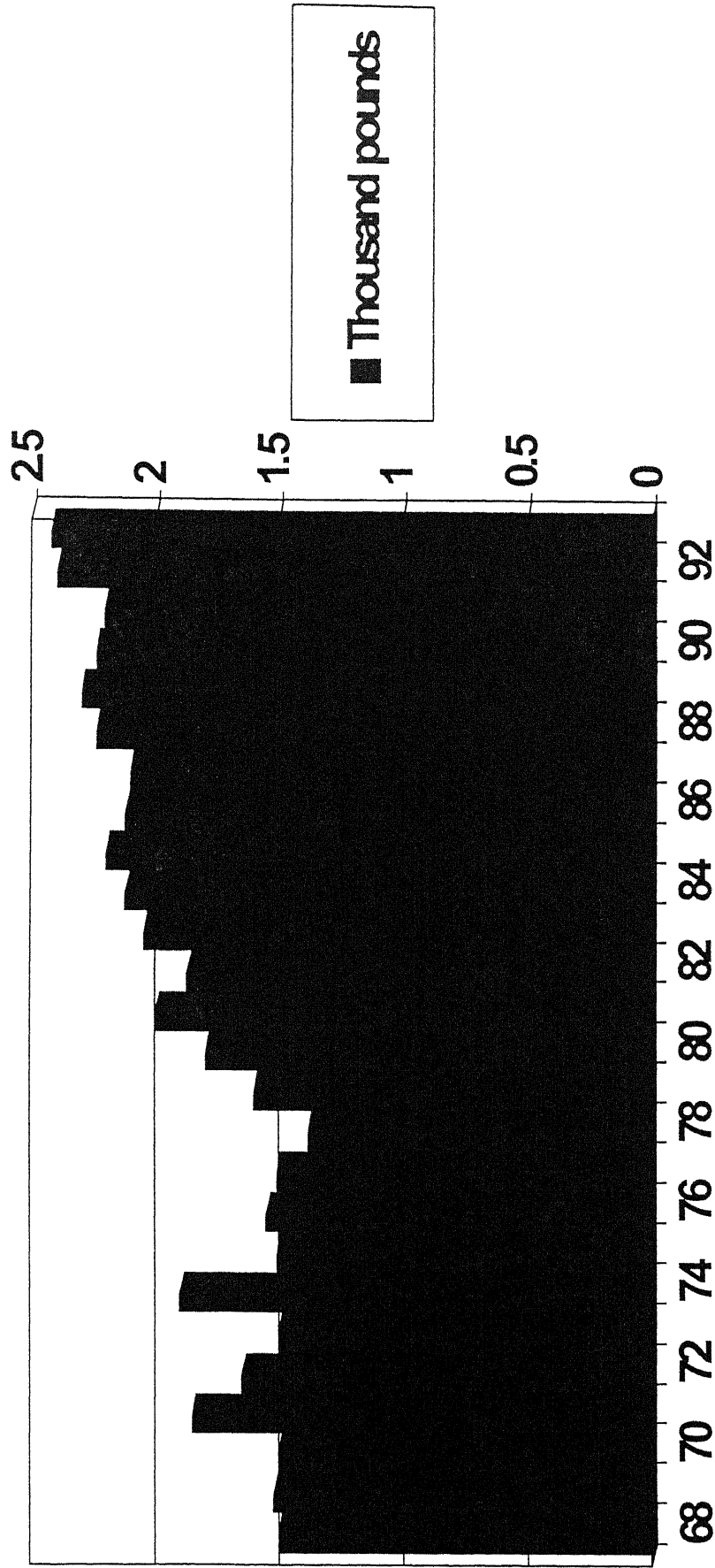
# PERFORMANCE OF HOG FINISHERS CONTRACT VS. INDEPENDENT 1992 ERS STUDY

	Contract	Independent
<u>Performance</u>		
Feed/cwt gain (lbs)	323	402
Labor/cwt gain (hrs)	0.29	1.06
Mortality (%)	1.35	2.36
Bldg. Use (turns/yr)	2.40	1.80
Economic Advantage/cwt gain		
Existing Bldgs.	\$7.32	
All New Bldgs.*	\$14.14	

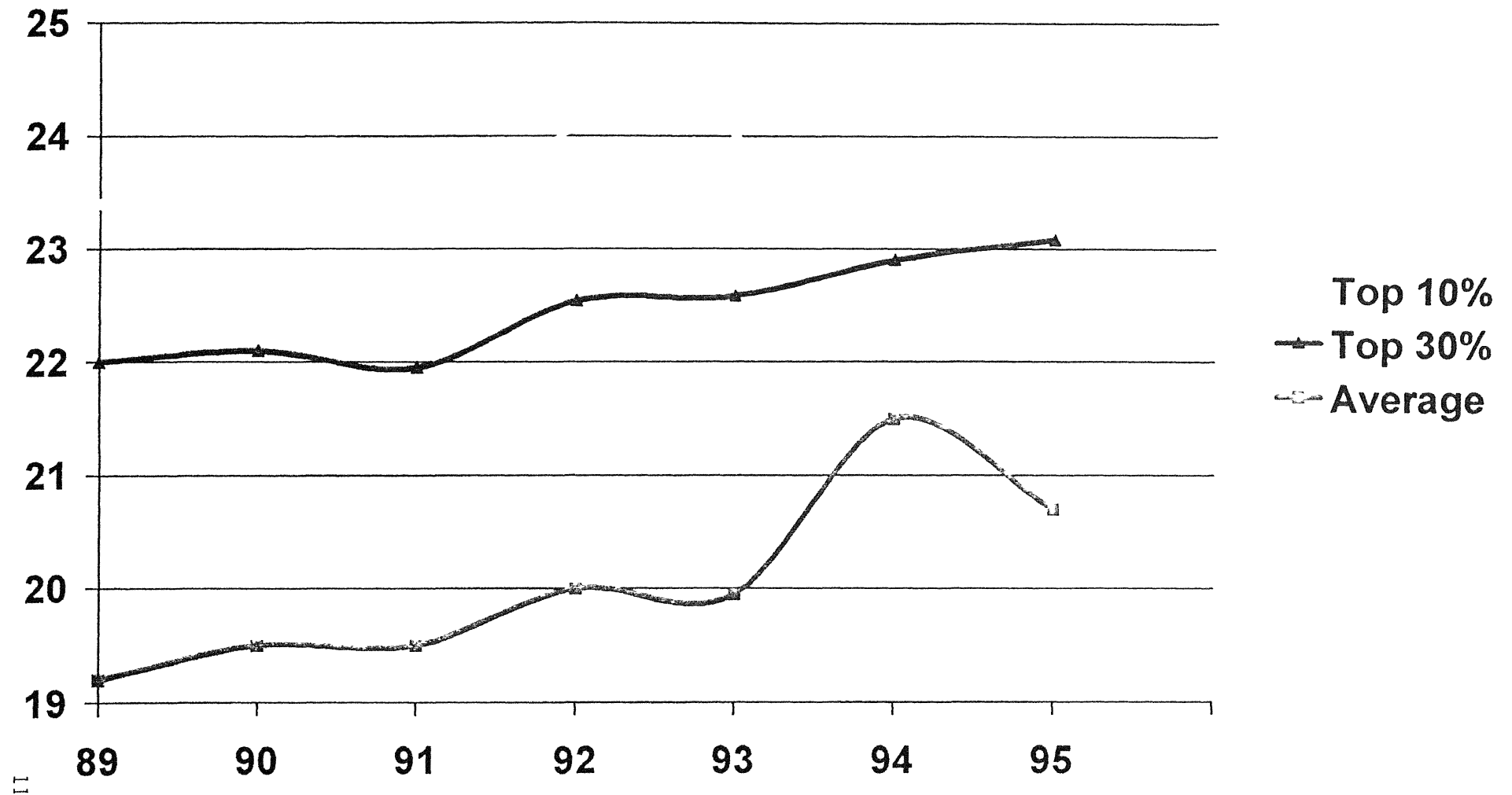
\* Estimated

Revised 10/95

# Pork produced per Breeding Hog



# Pigs Weaned/Sow/Year (Pigtales)



# Breeding Herd Performance

<b>Measurement</b>	<b>50<sup>th</sup> percentile</b>	<b>75<sup>th</sup> percentile</b>	<b>90<sup>th</sup> percentile</b>
Avg. Litters/Year	2.16	2.26	2.34
Avg. Weaning Age	25	21.8	19.8
Avg. Weaning Wt.	14.5	12.9	11.9
Avg. # Born Alive	10.1	10.4	10.8
Prewean mortality	13.6%	11.2%	9.1%
Avg. # Weaned	8.73	9.24	9.82
# Weaned/Sow/Yr	18.85	20.87	22.97

# Nursery Performance

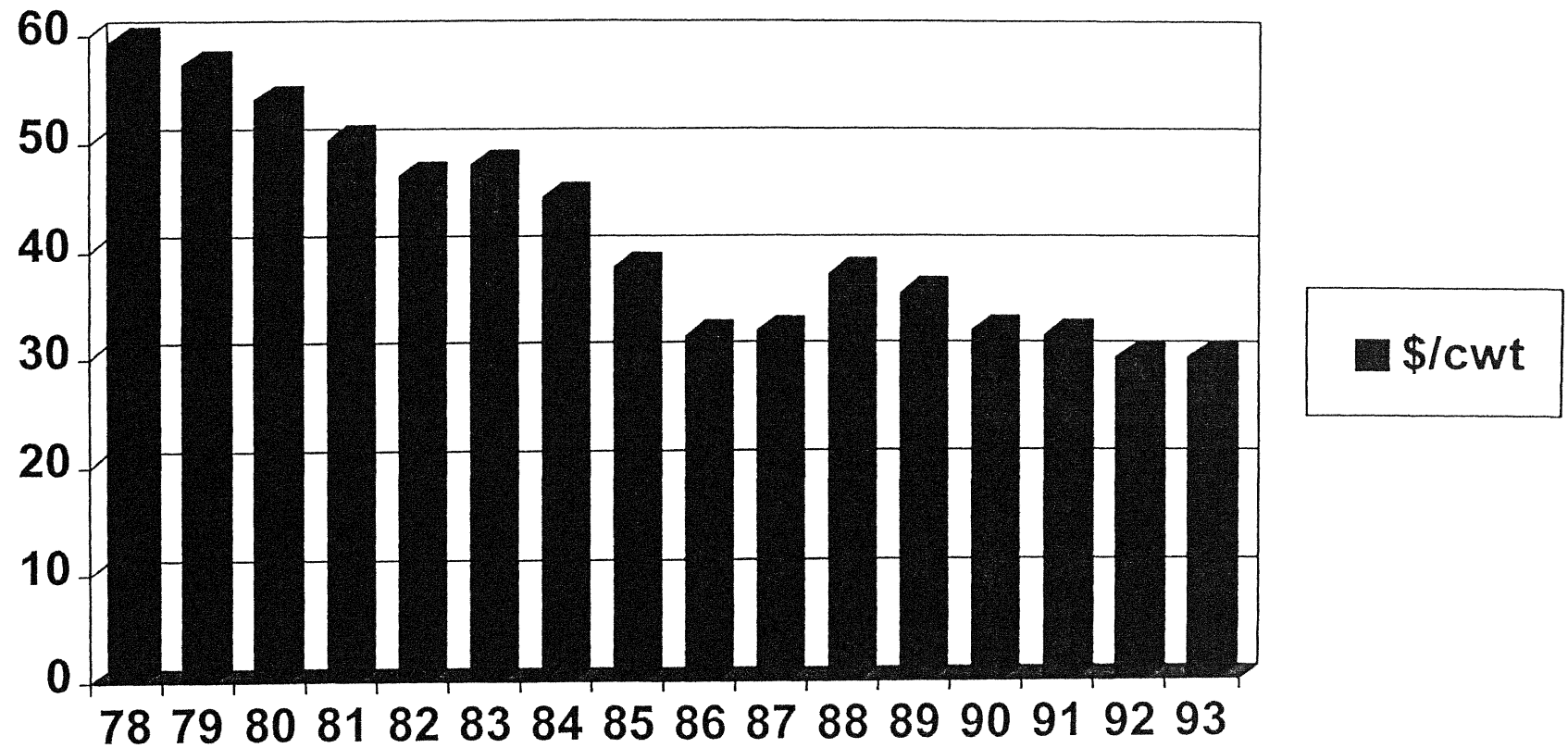
Measurement	50 <sup>th</sup> percentile	75 <sup>th</sup> percentile	90 <sup>th</sup> percentile
Avg. Daily Gain	0.73	0.79	0.86
Feed Efficiency	2.00	1.81	1.59
Mortality	3.40%	2.15%	1.40%
Feed Cost/Ton	\$211	\$207	\$210
Feed Cost/Pig	\$7.49	\$6.91	\$6.36

# Grow-Finish Performance

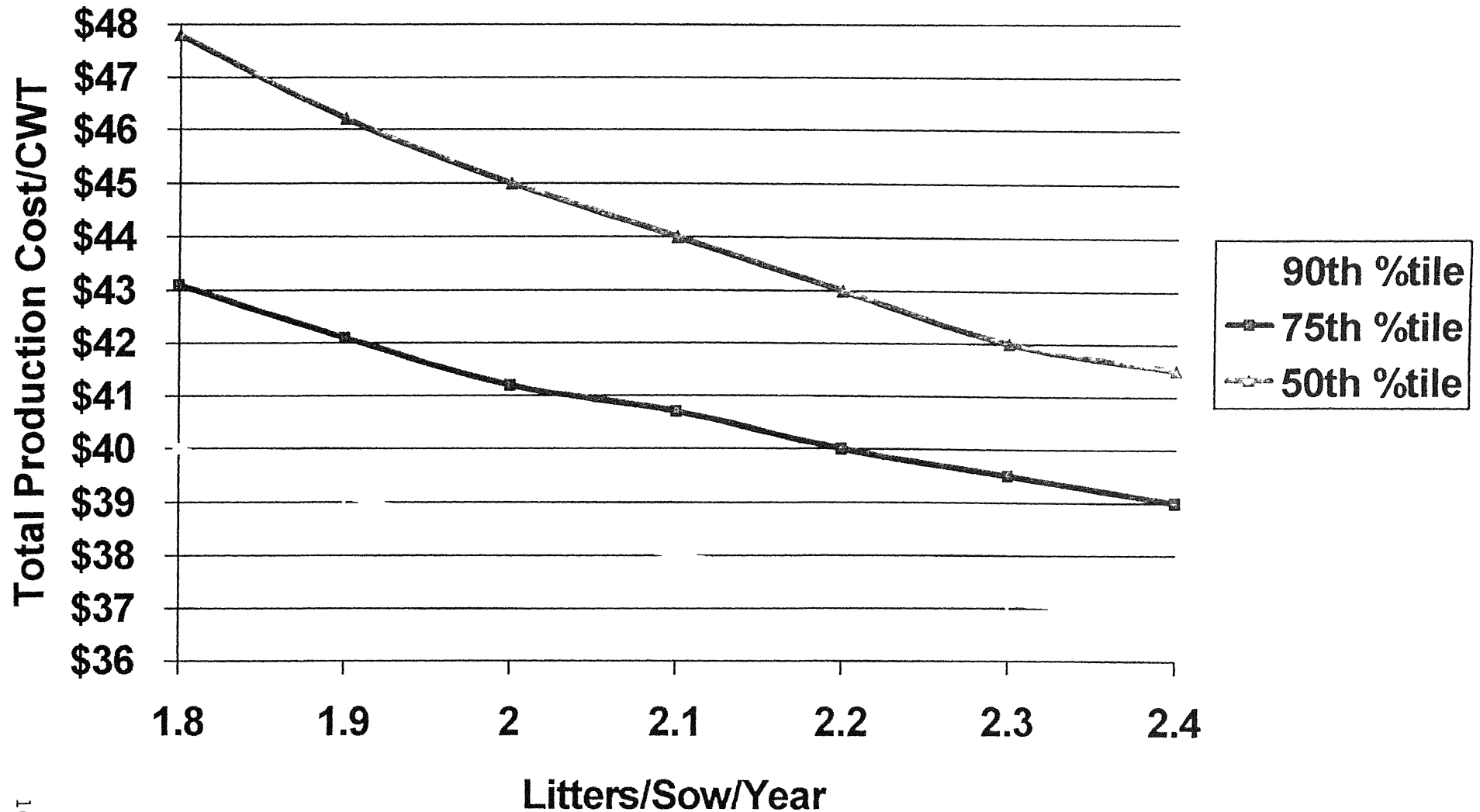
Measurement	50 <sup>th</sup> percentile	75 <sup>th</sup> percentile	90 <sup>th</sup> percentile
Avg. Daily Gain	1.45	1.57	1.65
Feed Efficiency	3.49	3.21	3.11
Mortality	4.20%	2.39%	1.30%
Days to Market	210	196	187
Avg. Market Wt.	251	251	251
Feed Cost/Pig	\$43.84	\$40.33	\$39.07
# Marketed/Sow/Yr.	17.42	19.42	22.35

# Deflated Production Costs

(1984 dollars)



# Effect of Throughput on cost of production





# Variable Costs

<b>Measurement (per head)</b>	<b>50<sup>th</sup> percentile</b>	<b>75<sup>th</sup> percentile</b>	<b>90<sup>th</sup> percentile</b>
Total Feed Cost	\$59.30	\$54.22	\$51.13
Labor	\$11.55	\$10.79	\$10.26
Utilities	\$3.33	\$3.11	\$2.96
Vet & Medicine	\$3.92	\$3.66	\$3.48
Net Genetics Cost	\$5.68	\$4.96	\$4.43
Other Variable Costs	\$11.88	\$11.11	\$10.39
Total Variable Costs	\$95.67	\$87.84	\$82.65

# Total Costs

Measurement	50 <sup>th</sup> percentile	75 <sup>th</sup> percentile	90 <sup>th</sup> percentile
Feed Cost/Head	\$59.30	\$54.22	\$51.13
Feed Cost/Ton	\$125	\$125	\$125
Total Variable Costs/Hd	\$95.67	\$87.84	\$82.65
Total Fixed Costs/Hd	\$13.15	\$11.53	\$10.31
Break-even/CWT	\$43.35	\$39.59	\$37.04

# IA Enterprise Means

Measurement	Top Third	Avg.	Bottom Third
Pigs/sow/year	19.51	16.32	12.78
Litters/sow/year	2.19	1.90	1.55
Pigs/crate/year	102	71	40
Sow herd size	211	124	54
Pigs weaned/litter	9.49	8.59	7.76
Feed efficiency	3.26	3.61	4.00
Feed cost, \$/cwt	\$22.39	\$25.29	\$28.55
Total cost, \$/cwt	\$35.69	\$40.55	\$45.74
Market price, \$/cwt	\$45.08	\$43.38	\$41.67

# IA Enterprise Means

<b>Measurement</b>	<b>Top 10% in category</b>	<b>Top 10% in profits</b>
Pigs/sow/year	21.44	18.19
Litters/sow/year	2.36	2.02
Pigs/crate/year	129	81
Sow herd size	310	163
Pigs weaned/litter	10.05	8.95
Feed efficiency	3.08	3.37
Feed cost, \$/cwt	\$20.74	\$22.23
Total cost, \$/cwt	\$32.56	\$33.07
Market price, \$/cwt	\$46.31	\$44.06

